

RESOURCE ALLOCATION CATEGORY (SUBPROGRAM) DESCRIPTION

Allocation Code and Title:

- 121, 122, & 126, Bridge Inspection & Repair.

Process Owner:

- Bridge Group, Assistant State Bridge Engineer - Operations.

Program Purpose:

- This subprogram preserves existing bridges on the state highway system. Bridges are a major transportation asset for ADOT constituting almost 1/3 of all highway assets. Preserving ADOT's bridge assets closely relates to ADOT's mission of "... providing a safe and efficient transportation system ..." Funds from this program also help pay for emergency bridge repairs required because of unexpected events such as vehicle collisions or acts of nature. Finally, this program also funds the bridge inspection effort, which is mandated by the federal government, ensuring compliance with the National Bridge Inspection Standards.
- Most of the program funds are spent on construction costs. However, some are spent on inspection and on design of bridge rehabilitation. Bridge inspection consultants are also paid from this program.
- Maintain state highway bridges so that the condition rating index exceeds 92.5%.

Rationale for Desirable Allocation Level:

- Three major factors drive the programming of bridge repair projects: Inspection findings, District input, and the Bridge Management System (BMS).
- Bridge inventory items, bridge component inspection ratings, and agency policies represent the major inputs to the BMS. Various reports prioritizing bridge preservation needs are extracted from the BMS.
- In order to sustain the stated measured goal above, an increase in the allocation to this subprogram in the future would be necessary.
- Bridge inventory expansion and resource shortages created a need to hire on-call consultants to supplement ADOT bridge inspection teams in order to meet the federal mandate of inspecting all bridges regularly.

Expected Program Duration:

- This is an ongoing program intended to preserve the Department's bridge assets. Discontinuing this program would lead to the gradual deterioration of bridge components resulting in higher repair/replacement costs and possibly in endangering the travelling public.
- The bridge inspection portion of this program is mandated by Title 23 of the United States Code – Chapter I, Subchapter I, Section 151. Federal highway funds could be withheld if the inspections are not performed according to the National Bridge Inspection Program requirements.

Program Management Process:**Budget Management**

- The Assistant State Bridge Engineer for Operations is responsible for recommending subprogram allocation levels, line items and projects.
- Contingencies are used for project budget adjustments and for emergency bridge repairs.
- Bridge repair projects are listed as line items for the current and following years of the 5-year construction plan. Beyond that the program funds are listed as a lump sum.

Authority and Process for Lump Sum Expenditures

- The Assistant State Bridge Engineer for Operations has authority to allocate the lump sum bridge repair project budgets. All allocations are subject to approval by PRB. New project recommendations require approval of PRB, PPAC and the Transportation Board. Contingency funds may be used to add new projects, increase funding for line item projects as required due to inadequate estimates, or for scope revisions. Contingency funds are obligated at bid advertisement for the projects they are associated with.

Project Recommendation Process

- The Bridge Management Section, using the BMS output, works closely with individual construction districts to identify and prioritize project recommendations.
- The Assistant State Bridge Engineer for Operations recommend line item projects to the Bridge Group Program Committee. This committee is chaired by the State Bridge Engineer and consists of both Assistant State Bridge Engineers and Bridge Sections' Leaders.
- General scoping is performed by senior bridge inspection engineers. Detailed scoping is performed by Bridge Management Section staff who

also manage all bridge repair projects. All scopes are reviewed by all members of the Bridge Group Program Committee. After final approval by the State Bridge Engineer, they are sent out to all involved ADOT units for review and comments. A project determination form is circulated along with the scoping document for signatures. The Master Project Management Form is initiated for creating the project. Once the scope is finalized, the project is created through adding it to the PRB agenda, then the PPAC.

Project Design Process

- Bridge repair projects are designed by Bridge Design Section staff whenever adequate resources are available. In the event that additional design resources are needed, the design of these projects is entrusted to the Bridge Design On-Call Consultants.
- Associated development costs (right of way, utilities, environmental) are funded through their own programs.